

ABSTRACT OF THE DISCLOSURE

A pressure reducer is configured for use in a liquid delivery system that requires its liquid contents to be pressurized to a first, relatively high pressure but also requires that the liquid be delivered to a downstream location such as a faucet at a second, relatively low pressure. The pressure reducer reduces the pressure of the flowing liquid by repeatedly imparting directional changes to the liquid. Preferably, the pressure reducer comprises a stationary restrictor having multiple aligned segments, each of which is configured to divide the liquid into two or more diverging streams and to recombine the streams at the end of the segment. Each segment preferably comprises a curved blade having opposed generally toroidal surfaces that border one of two divided liquid streams. The device may be located either remote from or adjacent to the faucet or other terminal point of the system and can include either a single passage or multiple parallel passages. A desired pressure drop can be obtained with high precision simply by properly selecting the configuration and/or number of segments in the device.